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BMDO RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)								DATE February 1999		
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604218C Upper Tier - EMD					PROJECT

COST (In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
Upper Tier	0	0	0	0	514318	471902	517902	634550	Continuing	Continuing

*** For information about these projects FY 1998 – 2001 please consult The R2 exhibits for PEs 0603868C (Navy Theater Wide) and 0603861C (THAAD)**

A. Mission Description and Budget Item Justification

Common Upper Tier- This new program element will create a restructured Upper Tier Theater Missile Defense Program involving Theater High Altitude Area Defense (THAAD) and Navy Theater Wide (NTW) This restructuring involves a new program element for the Upper Tier BMD programs beginning in FY02. Both the THAAD and NTW programs are fully funded to conduct a series of test through 2001. No later than December 2000 (1QFY01), the Department will evaluate the progress of these programs and make a decision for additional funding for one of these systems based on an assessment of the cost, schedule, technical performance and program risk. Once the program determination has been made, the Department will allocate the necessary funds to accelerate one of the programs with the objective of achieving an FUE in FY07. The Upper Tier strategy is designed to reward program success and provide defense against the medium- and long-range threat as soon as practical. The FY00 President's Budget continues THAAD and provides additional funding for NTW to help posture the program for possible acceleration to an FUE in FY07.

I. NTW - The requirement for the Navy Theater Wide (NTW) Theater Ballistic Missile Defense (TBMD) system is to provide protection to U.S. and allied forces against medium to long range theater ballistic missiles (TBMs), which may be equipped with Weapons of Mass Destruction (WMD). This protection includes those political and military assets designated as vital to U.S. interests. NTW will provide an effective defense when the ship is positioned near the enemy TBM launcher to effect ascent phase intercepts; along the TBM trajectory as the TBM passes over water, or inland along the coast to effect midcourse intercepts; and, near the defended area to provide descent phase intercepts and achieve an additional layer of defense for lower-tier TBMD systems.

The NTW system builds upon the existing AEGIS Weapon Systems (AWS) and the STANDARD Missile (SM) infrastructure as a further evolution to the Navy Area TBMD system. The AWS (as modified for Navy Area TBMD) will be evolved to support exoatmospheric ascent, midcourse, and descent phase engagements. The Navy SM-2 Block IV will be modified to accommodate a kinetic warhead (KW), a new third stage propulsion system, and exoatmospheric guidance. The new variant of the SM is the SM-3.

The NTW AEGIS Lightweight Exoatmospheric Projectile [LEAP] Intercept (ALI) Program consists of a series of near-term flight tests with the primary objective of demonstrating that LEAP technologies can be integrated with a modified SM-2 Blk IV and AWS to hit a TBM target in the exoatmosphere.

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<p>2. THAAD - The Theater High Altitude Area Defense (THAAD) System is being designed to negate theater ballistic missiles (TBM) at long ranges and high altitudes. Its long-range intercept capability will make possible the protection of broad areas, dispersed assets, and population centers against TBM attacks. The THAAD System includes missiles, Palletized Loading System (PLS) launchers, Battle Management/Command, Control, Communications, Intelligence (BM/C3I) units, THAAD Radars, and support equipment. The THAAD Radar (formerly known as Ground Based Radar) is funded under PE 0603861C through Dem/Val and 0604861C for EMD. It provides threat early warning, threat type classification, interceptor fire control, external sensor cueing, and launch and impact point estimates for the THAAD System. The THAAD Radar is based on state-of-the-art, solid-state, X-band radar technology. THAAD will be interoperable with both existing and future air defense systems. This netted and distributed BM/C3I architecture will provide robust protection against the TBM threat spectrum. THAAD is pursuing integration of THAAD BM/C3I with the Project Manager (PM), Air and Missile Defense Command and Control Systems (AMDCCS) to take advantage of previous Army developments that can be incorporated into the THAAD program.</p> <p>The THAAD System Engineering and Manufacturing Development (EMD) phase will refine and mature the Dem/Val system design to ensure component and system performance, producibility, and supportability.</p> <p>FY 1998 Accomplishments:</p> <ul style="list-style-type: none"> • 0 (See PE 0603868C for NTW accomplishments, and 0603861C and 0604861C for THAAD accomplishments) <p>Total 0</p> <p>FY 1999 Planned Program:</p> <ul style="list-style-type: none"> • 0 (See PE 0603868C for NTW accomplishments, and 0603861C and 0604861C for THAAD accomplishments) <p>Total 0</p> <p>FY 2000 Planned Program:</p> <ul style="list-style-type: none"> • 0 (See PE 0603868C for NTW accomplishments, and 0603861C and 0604861C for THAAD accomplishments) <p>Total 0</p> <p>FY 2001 Planned Program:</p> <ul style="list-style-type: none"> • 0 (See PE 0603868C for NTW accomplishments, and 0603861C and 0604861C for THAAD accomplishments) <p>Total 0</p>					
B. Program Change Summary		<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
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Previous President's Budget (FY 1999 PB)	0	0	0	0						
Congressional Adjustments										
Appropriated Value	0	0	0	0						
a. Congressional Reductions (FFRDC, Inflation, etc)										
b. OSD Reductions										
c. Emergency Supplemental										
Adjustments to Budget Years Since FY1999 PB										
Current Budget Submit (FY 2000 / 2001 PB)	0	0	0	0						
Change Summary Explanation: Not Applicable										
C. Other Program Funding Summary	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	To <u>Compl</u>	Total <u>Cost</u>
Navy Theater Wide – 0603868C	437,896	344,284	329,768	369,049	0	0	0	0	0	1,480,997
THAAD MILCON – 0604861C	0	0	0	0	0	4,689	17,200	0	0	21,889
THAAD Dem/Val – 0603861C	387,260	433,922	527,871*	3,519	0	0	0	0	0	1,352,572
THAAD EMD – 0604861C	0	0	83,755*	556,178	417,530	289,197	188,652	0	0	1,535,312
THAAD Procurement – 0208861C	0	0	0	0	0	91,729	182,628	603,924	5,186,000	6,064,281
<p>*FY00 THAAD EMD and Dem/Val controls do not match OSD/OMB funding controls due to a requested transfer of THAAD EMD (\$493,738) to THAAD Dem/Val not being processed prior to the funding controls database lock. These exhibits reflect the correct allocation of funds and the database realignment will be addressed at the Congressional level prior to funding appropriation.</p> <p>D. Acquisition Strategy:</p> <ol style="list-style-type: none"> 1. NTW: The NTW program is proceeding to a Defense Acquisition Board to be baselined and establish the acquisition strategy at that time. 2. THAAD: The EMD phase contract (missile, launcher, BM/C3I, and Radar) will be a sole source award to the Dem/Val contractor team (as approved September 15, 1995 by USD (A&T) utilizing the DoD Acquisition Streamlining approach.) The contractor team for the EMD phase will become the contractor team for the Low Rate Initial Production (LRIP) and Full Rate Production (FRP) phases. A single prime contractor will have total system performance responsibility for the EMD, LRIP, and FRP. 										
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E. Schedule Profile - NTW	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
Complete Navy TBMD COEA Phase II			1Q							
DAB Review				2Q						
Control Test Vehicle 1A				4Q						
Flight Test Round 1					1Q					
Flight Test Round 2					2Q					
Flight Test Round 3					3Q					
Flight Test Round 4					4Q					
Flight Test Round 5						1Q				
Flight Test Round 6						2Q				
Flight Test Round 7						3Q				
E. Schedule Profile - THAAD	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
Dem/Val Radar Integration and Test	1Q									
System Design Review	3Q									
UOES Radar 1 I&T Complete	4Q									
Radar System Test #1		1Q								
UOES Radar 2 I&T Complete		2Q								
Radar System Test #2			2Q							
Software Specification Review				3Q						
Risk Reduction Award				3Q						
Integrated System Tests Complete					1Q					
Milestone II					3Q					

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